

# INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB 03/03256

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61B5/103 G02B6/16 G01N21/47

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 A61B G02B G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, MPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 748 312 A (KERSEY ALAN D ET AL) 5 May 1998 (1998-05-05)	1, 2, 12, 21
Y	column 4, line 47 - column 9, line 30; figures 2A, 3A, 3B, 3C, 3D, 4, 5  column 1, line 8 - line 13 column 2, line 24 - line 29 ----- -/-	3-6, 8, 11, 13-20, 22

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (see specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*A\* document member of the same patent family

Date of the actual completion of the international search

28 October 2003

Date of mailing of the international search report

05/11/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Duijs, E

## INTERNATIONAL SEARCH REPORT

 Internat application No  
 PCT/GB 03/03256

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 256 090 B1 (CHEN PETER C ET AL) 3 July 2001 (2001-07-03)	1,2,12, 21
Y	column 6, line 43 - line 49; claims. 1,31,32; figures 2,3A,3B,3C,4A,4B5A,5B,11,12 column 1, line 13 - line 21 column 4, line 58 - line 60 column 5, line 43 - line 50 column 7, line 44 -column 9, line 35 column 11, line 33 -column 12, line 46 column 13, line 28 - line 31 column 15, line 1 - line 10	3-5, 7-11, 13-20,22
X	WO 86 01303 A (UNITED TECHNOLOGIES CORP) 27 February 1986 (1986-02-27)	1,2,12, 21
Y	page 3, line 5 -page 4, line 21; figures 1,2A,2B,2C,3	3-5,8, 11, 13-20,22
Y	US 5 920 582 A (BYRON KEVIN CHRISTOPHER) 6 July 1999 (1999-07-06) column 3, line 42 -column 4, line 6; figure 1	3-7,11, 13,16,17
Y	US 4 669 814 A (DYOTT RICHARD B) 2 June 1987 (1987-06-02)	8-10
A	column 4, line 54 -column 6, line 38; figure 2	3,4
Y	US 5 134 281 A (JOHNSON FRANK ET AL) 28 July 1992 (1992-07-28) column 1, line 63 -column 2, line 4 column 3, line 24 -column 4, line 8; figures 1,2	14,15, 18-20,22
A	US 5 966 490 A (ROCKNEY BENNETT H ET AL) 12 October 1999 (1999-10-12) abstract	4
A	US 5 754 293 A (FARHADIROUSHAN MAHMOUD) 19 May 1998 (1998-05-19) column 5, line 1 - line 27; figure 1 column 6, line 60 -column 7, line 27; figure 11	16,17

# INTERNATIONAL SEARCH REPORT

Information on patent family members

Internal Application No  
PCT/GB 03/03256

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5748312	A	05-05-1998	NONE	
US 6256090	B1	03-07-2001	NONE	
WO 8601303	A	27-02-1986	DE 3586052 D1 DE 191063 T1 EP 0191063 A1 JP 2521708 B2 JP 62500052 T WO 8601303 A1 US 4807950 A US 4725110 A	17-06-1992 15-01-1987 20-08-1986 07-08-1996 08-01-1987 27-02-1986 28-02-1989 16-02-1988
US 5920582	A	06-07-1999	NONE	
US 4669814	A	02-06-1987	US 4784454 A US 4950318 A US 4755021 A US 4668264 A	15-11-1988 21-08-1990 05-07-1988 26-05-1987
US 5134281	A	28-07-1992	CA 2009033 C CA 2009033 A1 CA 2130429 A1	01-11-1994 31-07-1991 01-08-1991
US 5966490	A	12-10-1999	DE 69807675 D1 DE 69807675 T2 EP 0972216 A1 JP 2000510609 T WO 9843122 A1	10-10-2002 02-01-2003 19-01-2000 15-08-2000 01-10-1998
US 5754293	A	19-05-1998	BR 9404747 A GB 2284256 A ,B NO 944534 A	18-07-1995 31-05-1995 29-05-1995